




1/4" Angle Die Grinder

USER'S MANUAL



 **WARNING:** Read carefully and understand all **ASSEMBLY AND OPERATION INSTRUCTIONS** before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

ITEM# 157792

For technical questions and replacement parts, please call 1-800-222-5381.

Thank you very much for choosing a NORTHERN TOOL & EQUIPMENT CO., INC. Product! For future reference, please complete the owner's record below:

Model: _____ Purchase Date: _____

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it.

This machine is designed for certain applications only. Northern Tool + Equipment strongly recommends that this machine is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted Northern Tool + Equipment to determine if it can or should be performed on the product.

Before using this product, please read the following instructions carefully.

Technical Specifications

Specifications	
Free Speed	20,000 RPM
Max air pressure	90 PSI
Air Consumption	4 CFM
Air Inlet	1/4"
Air Hose	3/8"
Accessories	2 spanners
Air Exhaust	Adjustable rear exhaust
Chuck Size	1/4"

GENERAL SAFETY RULES



WARNING: Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your pneumatic tool.



WARNING: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

SAVE THESE INSTRUCTIONS

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep this manual and invoice in a safe and dry place for future reference.

WORK AREA / PERSONAL SAFETY / TOOL CARE

1. **Keep work area clean.** Cluttered areas invite injuries.
2. **Observe work area conditions.** Do not use machines or power tools in damp or wet locations. Don't expose to rain. Keep work area well lighted.
3. **Keep bystanders, pets and children away.** Children must never be allowed in the work area. Do not let them handle machines, tools, extension cords, or air hoses.
4. **Store idle equipment.** When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **Use the right tool for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
6. **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically non-conductive clothes and non-skid footwear are recommended when working. Wear restrictive hair covering to contain long hair. Always wear steel toe shoes when operating the Air Die Grinder.
7. **Use eye and ear protection.** Always wear ANSI-approved impact safety goggles and ear protection.
8. **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across running machines or air hoses.
9. **Maintain tools with care.** Keep tools clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords and air hoses periodically and, if damaged, have them repaired by an authorized technician. The handle must be kept clean, dry, and free from oil and grease at all times.
10. **Disconnect air supply.** Disconnect air hose when not in use.
11. **Avoid unintentional starting.** Be sure the trigger is not depressed when carrying the Air Die Grinder.
12. **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
13. **Check for damaged parts.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the Air Die Grinder if the trigger does not turn on and off properly.
14. **Guard against electric shock.** Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerator enclosures.
15. **Do not operate tool if under the influence of alcohol or drugs.** Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
16. **Use proper size and type extension cord.** If an extension cord is required for the air compressor, it must be of the proper size and type to supply the correct current to the tool without heating up. Otherwise, the extension cord could melt and catch fire, or cause electrical damage to the tool. Check your compressor's manual for the appropriate size cord.

17. **For your safety, maintenance should be performed regularly by a qualified technician.**
18. **Use compressed air only — Never use combustible gases as a power source.**

Note: Performance of the compressor (if powered by line voltage) may vary depending on variations in local line voltage. Extension cord usage may also affect tool performance.

Additional Safety Warnings

1. Repetitive motions or exposure to vibration may be harmful to your hands and arms.
2. When wearing gloves to operate the Air Angle Die Grinder, make sure that the gloves do not interfere with operating the trigger. Test your gloves with the trigger before attaching the unit to an air source.
3. Never start the tool unless you have a firm grip with both hands and you are positioned at your workpiece or area.
4. Before using the Air Angle Die Grinder, know what is directly underneath the work area or workpiece.
5. The Air Angle Die Grinder can quickly penetrate material. If working directly on the ground, make sure you are not directly above shallow cables, lines, or pipes.
6. Never point the tool or the air hose (not included) at anyone.
7. Keep your finger away from the trigger until you are ready to work.

Operation

Set Up

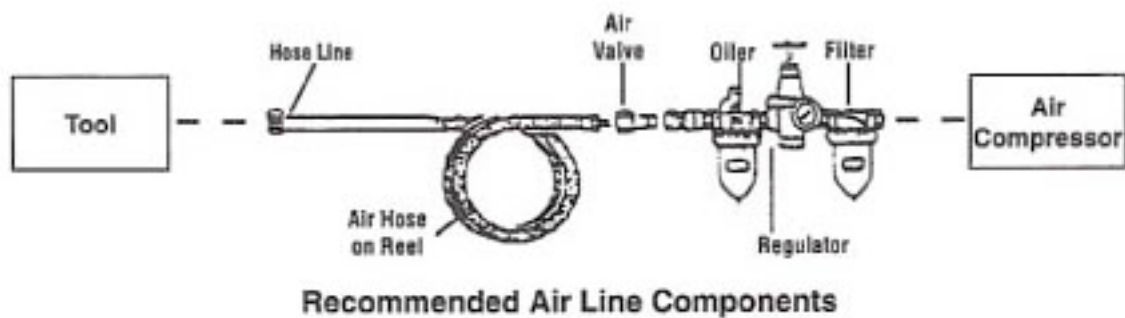
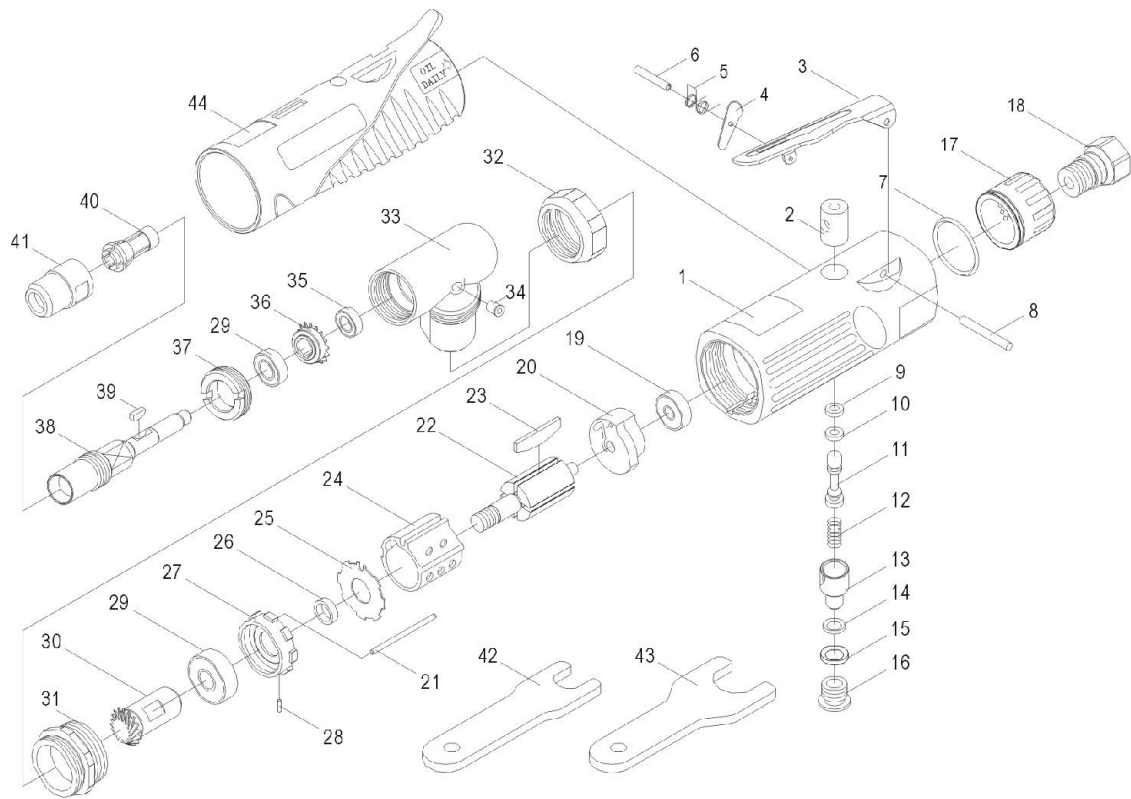


Fig. 1

1. You will need to prepare a 1/4" air connector (sold separately) to connect to the Air Inlet. First, wrap the 1/4" air connector (not included) with pipe thread seal tape before connecting to a Air Source Hose (not included).
2. Attach air hose to the Air Inlet on the Angle Die Grinder. Note: If you are not using an automatic oiler system, before operation, add a few drops of Pneumatic Tool Oil to the airline connection. Add a few drops more after each hour of continual use.
3. Set the air pressure on your compressor to 90 PSI. Do not exceed the recommended air pressure of 90 PSI.
4. Check the air connection for leaks.
5. Turn off the compressor and disconnect the air source hose in preparation to load bits into the Angle Die Grinder.

Diagram for the Angle Die Grinder



Parts List for the Angle Die Grinder

Part#	Description	Qty.	Part#	Description	Qty.
1	Housing	1	24	Cylinder	1
2	Valve Bushing	1	25	Washer	1
3	Trigger	1	26	Rotor Collar	1
4	Lever	1	27	Front Plate	1
5	Spring	1	28	Steel Ball	1
6	Pin	1	29	Bearing	2
7	O-Ring	1	30	Angle Gear	1
8	Pin	1	31	Clamp Nut	1
9	O-Ring	1	32	Cap	1
10	O-Ring	1	33	Angle Head	1
11	Air Valve	1	34	Grease Cap	1
12	Spring	1	35	Bearing	1
13	Air Regulator	1	36	Angle Gear	1
14	O-Ring	1	37	Lock Nut	1
15	O-Ring	1	38	Work Spindle	1
16	Valve Plug	1	39	Woodruff Key	1

17	Muffle Cover	1	40	Chuck A 1/4"	1
18	Air Inlet	1		Chuck A 1/8"	1
19	Bearing	1	41	Collet Nut	1
20	End Plate	1	42	Wrench	1
21	Pin	1	43	Wrench	1
22	Rotor	1	44	Rubber Wrapper	1
23	Rotor Blade	4			



WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints,
- Crystalline silica from bricks and cement and other masonry products, and
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles



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